

To: Gundersen, Jennifer[Gundersen.Jennifer@epa.gov]; Warner, Sue[Warner.Sue@epa.gov]; Molnar, Adam[Molnar.Adam@epa.gov]
From: Caporale, Cynthia
Sent: Mon 2/24/2014 7:23:00 PM
Subject: FW: Fwd: MCHM fate and biotransformation proposal
Biodegradation of MCHM Concept Proposal.draft ml.docx
ATT00001.htm

Please review and let me know if you have comments. Also, not sure where we are with a HT study in hexane?? Any ideas the HT in the samples we received?

From: Hedrick, Elizabeth
Sent: Monday, February 24, 2014 2:07 PM
To: Caporale, Cynthia
Subject: FW: Fwd: MCHM fate and biotransformation proposal

I am passing this along as the proposal mentions the carboxylic acid (CA) of MCHM. It appears that other chemists are thinking along the same line. The proposal's authors do not have GC-MS (just FID) which I think might be a hindrance to elucidating structures. If you have lab folks still working on this it might be worth looking for the CA and developing a method for it (you can purchase the CA). The pKa will be much lower than for MCHM which could be used to optimize its extraction.

I have accumulated some articles on naphthenic acids. If you are interested, I can share them with you.

And lastly, GCWW has informally shared with us the fact that they are observing degradation of MCHM on the order of days. I don't have any more details on how they held the samples but if you are interested we could put you in touch with them.

Thanks,

Elizabeth

Water Security Division

Office of Ground Water and Drinking Water

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From: Allgeier, Steve

Sent: Monday, February 24, 2014 11:43 AM

To: Lindquist, Alan; Magnuson, Matthew; Hedrick, Elizabeth

Subject: FW: Fwd: MCHM fate and biotransformation proposal

Just FYI

From: Arguto, William

Sent: Monday, February 24, 2014 10:14 AM

To: Allgeier, Steve

Cc: binetti, victoria; Wisniewski, Patti-Kay

Subject: FW: Fwd: MCHM fate and biotransformation proposal

Steve – an FYI on USGS research

Bill

From: Kelly, Jack (R3 Phila.)

Sent: Monday, February 24, 2014 9:46 AM

To: Arguto, William; Wisniewski, Patti-Kay; binetti, victoria; Werner, Lora; Markiewicz, Karl; Helverson, Robert; Burns, Francis; Singhvi, Raj; Caporale, Cynthia
Cc: Linden, melissa; Matlock, Dennis; Smith, Art; Gilbert, John
Subject: Fw: Fwd: MCHM fate and biotransformation proposal

I can't review now just passing on for later discussion.

From: Matlock, Dennis
Sent: Monday, February 24, 2014 9:39:52 AM
To: Kelly, Jack (R3 Phila.)
Subject: Fw: Fwd: MCHM fate and biotransformation proposal

Jack fyi
Pass along as you like.
Thx
dennis

From: Dorsey, Mike H <Mike.H.Dorsey@wv.gov>
Sent: Monday, February 24, 2014 8:57:28 AM
To: Rusty; Matlock, Dennis
Subject: Fwd: MCHM fate and biotransformation proposal

FYI.

Sent from my iPhone

Begin forwarded message:

From: "Campbell, Patrick V" <Patrick.V.Campbell@wv.gov>
Date: February 24, 2014 at 8:55:52 AM EST
To: "Dorsey, Mike H" <Mike.H.Dorsey@wv.gov>, "Hickman, Joseph M" <Joseph.M.Hickman@wv.gov>
Cc: "Mandirola, Scott G" <Scott.G.Mandirola@wv.gov>
Subject: FW: MCHM fate and biotransformation proposal

Mike/Joe – looks like the USGS science guys have been doing some heavy thinking on mchm degradation. I've asked them for info on price and how qwik we could get some preliminary answers.

I'd be interested to know if this piques y'all's interest, or if you believe it is more of Freedom's problem.

One end product may be identification of bugs that like to eat mchm, or mchm-petroleum mixes. In the other places they've come up with a hungry bug mix, then had contractors deploy them as part of the cleanup.

From: Chambers, Douglas [<mailto:dbchambe@usgs.gov>]
Sent: Thursday, February 20, 2014 2:07 PM
To: Campbell, Patrick V; Wirts, John C
Subject: MCHM fate and biotransformation proposal

Pat, John,

When I was working in the Baltimore office over the past few years I became acquainted with the researchers on the Fate and Bioremediation Team there. These folks have been working on tracking the environmental fate and degradation of compounds at locations such as Aberdeen Proving Grounds and White Sands Missile Range. I spoke to them about the MCHM spill, just to get their take on the situation. After some thought they came up with the following. I felt it was worth passing along to you.

--

Douglas B. Chambers

Biologist/Water-Quality Specialist

USGS West Virginia Water Science Center

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